NC/QC/YPD/SIP-01/2017-18/SH-C1 Date: 09-03-2018

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

PHYSICAL TESTS ON CEMENT

Brand : RAMCO
Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**148 min**	Shall not be less than 30 min
2	Final setting time	**256 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**2.14 %**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**2.06 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	**28.35 N/Sq mm**	Shall not be less than 27 N/Sqmm

*As furnished by Client.
The Results relate only to the items tested.

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Asst. Executive Engineer
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Yelahanka Zone
Bangalore

For Newzen Consultants Bangalore

Proprietor

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NC/QC/YPD/SIP-01/2017-18/SH-PCC1 **Date: 09-03-2018**

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	65.80	0 -20	30- 70
10mm	17.25	0 -5	10- 35
4.75mm	4.10	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	97.25	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	85.10	60-95	75-100	85-100	
01.18	68.75	30-70	55-90	75-100	
600 mic	45.30	15-34	35-59	60-79	
300 mic	17.05	5-20	8-30	12-40	
150 mic	7.45	0-10	0-10	0-10	

*As Furnished by Client.
The Results relate only to the items tested.

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Page No. 1/1,

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NC/QC/YPD/SIP-01/2017-18/SH-C2 Date: 13-03-2018

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

PHYSICAL TESTS ON CEMENT

Brand : RAMCO
Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**153 min**	Shall not be less than 30 min
2	Final setting time	**258 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**2.10%**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**2.08 mm**	Shall not be more than 10 mm
5	Compressive strength b) 3 days (average of three results)	**28.32 N/Sq mm**	Shall not be less than 27 N/Sqmm

*As furnished by Client.
The Results relate only to the items tested.

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NC/QC/YPD/SIP-01/2017-18/SH-PCC2 **Date: 13-03-2018**

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	**100.00**	85-100	90 – 100
20mm	**68.25**	0 -20	30- 70
10mm	**18.45**	0 -5	10- 35
4.75mm	**4.10**	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	**96.10**	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	**83.60**	60-95	75-100	85-100	
01.18	**65.20**	30-70	55-90	75-100	
600.mic	**47.80**	15-34	35-59	60-79	
300.mic	**18.65**	5-20	8-30	12-40	
150.mic	**6.90**	0-10	0-10	0-10	

*As Furnished by Client.
The Results relate only to the items tested.

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NC/QC/YPD/SIP-01/2017-18/SH-C3 Date: 17-03-2018

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

PHYSICAL TESTS ON CEMENT

Brand : RAMCO
Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**149 min**	Shall not be less than 30 min
2	Final setting time	**255 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**1.96 %**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**2.08 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	**28.62 N/Sq mm**	Shall not be less than 27 N/Sqmm

*As furnished by Client.
The Results relate only to the items tested.

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NC/QC/YPD/SIP-01/2017-18/SH-FA1 **Date: 17-03-2018**

1. TESTING OF FINE AGGREGATES :

Sub: Testing of Fine Aggregates.
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TABLE - 1.1 : SIEVE ANALYSIS :

IS Sieve Size,mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -II	
04.75	**97.20**	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	**85.45**	60-95	75-100	85-100	
01.18	**68.15**	30-70	55-90	75-100	
600. mic	**53.00**	15.34	35-59	60-79	
300.mic	**23.10**	5-20	8-30	12-40	
150.mic	**6.55**	0-10	0-10	0-10	

TABLE 1.2 ;

Sl No	Test Conducted	Sample	Results	**Requirements** as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Bulking of Sand	001	**15.65 %**	-----
2	Silt Content	----	**0.53 %**	Not more than 8%
3	Specific Gravity	----	**2.62**	-------

*As Furnished by Client.
The Results relate only to the items tested.

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NC/QC/YPD/SIP-01/2017-18/SH-CA1 Date: 17-03-2018

1. TESTING OF COARSE AGGREGATES (20 mm):

Sub: Testing of Construction Materials.
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
	20 mm Sample	Single size	Graded
40 mm	**100.00**	100.00	100.00
20 mm	**98.25**	85-100	90 - 100
10 mm	**36.15**	0 - 20	25 - 55
4.75 mm	**3.85**	0 - 5	0 - 10

TABLE 1.2 :

SL No	Test conducted	Results	Requirements as per IS:383-1970 & Tests Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	**22.65 %**	Not to exceed 25 %
2.	Crushing value	**26.23 %**	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

*As Furnished by Client.
The Results relate only to the items tested.

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Newzen Consultants Bangalore

NC/QC/YPD/SIP-01/2017-18/SH-S1 Date: 17-03-2018

1. TEST REPORT ON REINFORCEMENT STEEL:

Sub: Testing of Reinforcement Steel of diameter 10 & 12 mm **TMT Steel.**
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TABLE – 1

SL No	Details	For 10 mm		For 12 mm	
		Test Results	Min Req. as per IS 1786-2008	**Test Results**	Min Req. as per IS 1786-2008
01	Observed diameter of bar	**10.0 mm**	10.0 mm	**12.0 mm**	12.0 mm
02	Observed Wt/m Length **Kg/m**	**0.625**	0.567	**0.883**	0.834
03	Proof stress/Yield stress, fy , **N/mm^2**	**550.0**	500.0	**545.0**	500.0
04	Bend/ Re bend Test	**Ok**	---	**Ok**	---
05	Percentage of Elongation, %	**20.40**	12.00	**21.30**	12.00
06	Ultimate Tensile Strength **N/mm^2**	**645.0**	545.0	**640.0**	545.0

*As furnished by Client.
The Results relate only to the items tested.

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NC/QC/YPD/SIP-01/2017-18/SH-CB1 Date: 28-03-2018

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	21-03-18	28-03-18	07	22500	365	16.22	**16.30**
	002	"	"	"	"	375	16.67	
	003	"	"	"	"	360	16.00	

*As Furnished by Client.
The Results relate only to the items tested.

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NC/QC/YPD/SIP-01/2017-18/SH-CB2

Date: 31-03-2018

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	24-03-18	31-03-18	07	22500	385	17.11	**16.89**
	002	"	"	"	"	375	16.67	
	003	"	"	"	"	380	16.89	

*As Furnished by Client.
The Results relate only to the items tested.

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Newzen Consultants Bangalore

NC/QC/YPD/SIP-01/2018-19/SH-CB3 Date: 03-04-2018

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Improvements to Main roads and drains at Shivanahalli.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	27-03-18	03-04-18	07	22500	380	16.89	**16.44**
	002	"	"	"	"	370	16.44	
	003	"	"	"	"	360	16.00	

*As Furnished by Client.
The Results relate only to the items tested.

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